

Remarks

Reconsideration and reexamination of this application, as amended, is respectfully requested. Claims 1 and 6-12 are pending in this application. Claims 1 and 6-12 have been amended. Claims 2-5 have been cancelled. No claims have been added.

Response to Claim Objections

The phrase "such as" has been removed from amended Claims 1 and 3. With respect to the phrases "optical device", "optical isolator", "optical attenuator", "optical circulator", and "optical switch"; each of Claims 7-12 has been amended to correct for the insufficient antecedent basis noted by the Examiner.

Response to Rejection Under 35 U.S.C. §102

In the Office Action mailed August 15, 2006, the Examiner rejected Claims 1, 3 and 5-12 under 35 U.S.C. §102(e) as being anticipated by Zhang et al. The Applicant believes the claimed invention to be patentable over this reference and has amended independent Claim 1 to more clearly define thereover.

Independent Claim 1, as amended, specifies a first combination of birefringent wedges with parallel optic axes capable of dividing an optical input beam into polarized beams. Amended Claim 1 further specifies a second combination of birefringent wedges with parallel optic axes for combining polarized beams into an output beam, wherein a polarization changer is disposed between said first combination of birefringent wedges and said second combination of birefringent wedges.

The claimed invention differs from the prior art reference in that the claimed invention provides for a first combination of wedge-shaped prisms for splitting a beam into two parallel polarized beams, and a second combination of wedge-shaped prisms for combining two parallel polarized beams into a single beam. The Examiner refers to Fig. 10, Elements 911 and 912 and Col. 19, Lines 27-67, Col. 20, Lines 1-6 and Col. 21, Lines 1-34 of the Zhang et al. patent in support of the rejection. A portion of the specification referred to reads as follows:

Beginning with FIG. 9A, unpolarized light 956 enters the input polarization beam displacer 911, which separates it into two component beams 959, both of which are horizontally polarized. The polarization beam splitter 930 passes the two component beams 959 to the first etalon stage 920A, as shown by symbols 961. The etalon stage 920A recombines the two component beams 961 into a single unpolarized beam 964.

(Col. 20, ll. 56-63)

The Examiner extrapolates from the above to conclude that the Zhang et al. patent discloses a combination of birefringent prisms for dividing an input beam into polarized beams and a combination of birefringent prisms for combining polarized beams into an output beam. However, the Zhang et al. reference actually discloses a single birefringent crystal, not a pair of birefringent wedges, for separating the unpolarized beam into two component beams and likewise for combining the polarized beams into an unpolarized beam as shown in the above quotation and as further depicted in FIGS. 9A, 9B, 9C, and 10 of the Zhang et al. patent.

With respect to dependent Claims 6-12, as amended, Applicant relies upon the arguments advanced with respect to independent Claim 1, as amended, as to why the Zhang et al. reference fails to disclose or suggest Applicant's claimed invention.

Conclusion

In summary, the Applicant believes that claims 1 and 6-12, as amended, meet the substantive requirements for patentability. The case is in appropriate condition for allowance. Accordingly, such action is respectfully requested.

Respectfully submitted,

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